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Product Service

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Emission date: 22.01.2015

Page: 1 of 5

Prüfbericht Nr. / Test Report No:**F4-44254-48401-01 (Edition 1)**

Auftraggeber ABB STOTZ KONTAKT GmbH
Applicant

Geräteart NS Protection Interface
Type of equipment

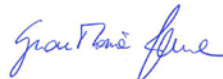
Typenbezeichnung CM-UDF.M31
Type designation

Seriennummer / N/A
Serial number

Auftragsnummer / N/A
Order No.

TEST REPORT	
F.4 Requirements for the test report for the NS protection	
Report Number..... :	F4-44254-48401-01 (Edition 1)
Date of issue..... :	22.01.2015
Total number of pages	5
Applicant's name	ABB STOTZ KONTAKT GmbH
Address..... :	Eppelheimer Straße 82, D-69123 Heidelberg
Test specification:	
Standard..... :	VDE-AR-N 4105:2011 (1 st Edition) Test methods according to DIN VDE 0124-100:2012 (1 st Edition)
Test procedure	☐ GS, ☐ TÜV Mark, ☐ EU-Directive, ☒ without certification
Non-standard test method	N/A
Test Report Form No. :	F3 –F4 VDE-AR-N 4105 Rev1.00 02.2014
Test Report Form(s) Originator :	TÜV SÜD Product Service GmbH
Date of emission	26.02.2014
Revision of Test Report Form..... :	Revision 1.00, First emission
General disclaimer:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the Testing Laboratory responsible for this Test Report.	
Test item description..... :	NS protection Interface.
Trade Mark..... :	ABB
Manufacturer	ABB STOTZ-KONTAKT GmbH
Model/Type reference	CM-UDF.M31
Ratings	A1/A2: AC/DC 24-240V 50Hz



Testing Laboratory:	TÜV SÜD Product Service GmbH	
Testing location/ address	Äußere Frühlingsstraße 45, 94315 Straubing Germany	
Approved by (name + signature)	Gian Maria Fontolan	

The results inhere reported are referred to the following test report:
44254-48401-0126-01 (Edition 1)
In which are reported:
 a) The identification of the tested sample;
 b) Any judgement of compliance or not;
 c) All the results of measures and Inspections.

This document is emitted only to report the results of measure required by Annex F3 and Annex F4 of the standard.

Remark:
Product is a NS central protection interface.
Annex F3 of VDE AR N 4105 is not applicable.
Test results referring to Annex F4 of VDE AR N 4105 are reported.

NS protection as central NS protection

Type of NS protection: CM-UDF.M31	Other manufacture's data
Software Version: 1SVR560730S3401_A1	Address:
Manufacturer: ABB STOTZ-KONTAKT GmbH	Eppelheimer Straße 82, D-69123 Heidelberg

Measuring period:

16.09.2014

a) The tripping time comprises the period before limit violation U/f until tripping signal to interface switch.

During planning of power generation system the proper time of interface switch shall be added to the highest value of time determinate above.

The break time (sum of tripping time NS protection plus proper time of interface switch) shall not exceed 200ms.

Protection function	Setting value	Tripping value	Tripping time NS protection ^{a)}
Voltage drop protection $U<$	$0,8 \cdot U_n$	184,08Vac	87.6 ms
Rise-in-voltage protection $U>$	$1,1 \cdot U_n$	$1.1 \cdot U_n$	282.4 s (*)
Rise-in-voltage protection $U>>$	$1,15 \cdot U_n$	265,04Vac	84.5 ms
Frequency decrease protection $f<$	47,5Hz	47.50Hz	72.9 ms
Frequency decrease protection $f>$	51,5Hz	51.51 Hz	76.8 ms
Proper time of interface	---ms		

The break time (sum of tripping time NS protection plus proper time of interface switch) shall not exceed 200ms.

The verification of the functional chain "NS protection-Interface switch" has yield to intended disconnection.

(*) Time of test C for $1,10U_n$ threshold verification as required by DIN V VDE V 0124-100. Result is in compliance with standard requirements.



NS protection as central NS protection																															
Type of NS protection: CM-UDF.M31		Other manufacture's data																													
Software Version: 1SVR560730S3401_A0		Address:																													
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Measuring period:																															
20.02.2014																															
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<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">Protection function</th> <th style="width: 15%;">Setting value</th> <th style="width: 15%;">Tripping value</th> <th style="width: 37%;">Tripping time NS protection ^{a)}</th> </tr> </thead> <tbody> <tr> <td>Voltage drop protection $U<$</td> <td>$0,8 \cdot U_n$</td> <td>184,10Vac</td> <td>81.6ms</td> </tr> <tr> <td>Rise-in-voltage protection $U>$</td> <td>$1,1 \cdot U_n$</td> <td>$1.1 \cdot U_n$</td> <td>282.2 s (*)</td> </tr> <tr> <td>Rise-in-voltage protection $U>>$</td> <td>$1,15 \cdot U_n$</td> <td>264,17Vac</td> <td>81.3ms</td> </tr> <tr> <td>Frequency decrease protection $f<$</td> <td>47,5Hz</td> <td>47.51Hz</td> <td>81.9ms</td> </tr> <tr> <td>Frequency decrease protection $f>$</td> <td>51,5Hz</td> <td>51.51 Hz</td> <td>68.2ms</td> </tr> <tr> <td>Proper time of interface</td> <td colspan="3">---ms</td> </tr> </tbody> </table> The break time (sum of tripping time NS protection plus proper time of interface switch) shall not exceed 200ms. The verification of the functional chain "NS protection-Interface switch" has yield to intended disconnection. (*) Time of test C for 1,10Vn threshold verification as required by DIN V VDE V 0124-100. Result is in compliance with standard requirements.				Protection function	Setting value	Tripping value	Tripping time NS protection ^{a)}	Voltage drop protection $U<$	$0,8 \cdot U_n$	184,10Vac	81.6ms	Rise-in-voltage protection $U>$	$1,1 \cdot U_n$	$1.1 \cdot U_n$	282.2 s (*)	Rise-in-voltage protection $U>>$	$1,15 \cdot U_n$	264,17Vac	81.3ms	Frequency decrease protection $f<$	47,5Hz	47.51Hz	81.9ms	Frequency decrease protection $f>$	51,5Hz	51.51 Hz	68.2ms	Proper time of interface	---ms		
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End of Test Report